

## TABLE OF CONTENTS

<i>Bajtek, V., Frydrýšek, K., Mrkvica, I., Sejda F., Vlk, M.:</i> STRENGTH ANALYSIS OF A WOODWORKING CUTTER	7
<i>Barcikowski, M., Blažejewski, W., Krežalek, R., Panek, M., Gasior, P.:</i> ACOUSTIC EMISSION IN COMPOSITE SANDWICH TRUCK-FLOOR PANELS UNDER CYCLIC LOADING	9
<i>Bartecký, M., Halama, R.:</i> PREDICTION OF PIPE OVALISATION	11
<i>Bělík, R., Fusek, M.:</i> COMPARISON OF EXPLICIT SOLVERS BASED ON TAYLOR CYLINDER IMPACT TEST	13
<i>Bugár, J., Byrtus, M.:</i> MODELING AND ANALYSIS OF VERTICAL RAILWAY VEHICLE-TRACK DYNAMICS	15
<i>Bulín R., Hajžman. M.:</i> BASIC ROPE-SHEAVE INTERACTION ANALYSIS USING ABSOLUTE NODAL COORDINATE FORMULATION	17
<i>Frydrýšek, K.:</i> PLENARY LECTURES: "STRUCTURES ON ELASTIC FOUNDATIONS" & "APPLICATION OF PROBABILISTIC METHODS IN ENGINEERING PRACTICE"	19
<i>Goga, V., Paulech, J., Sedlár, T., Matej, J.:</i> TESTING THE ABSORPTION PROPERTIES OF SOLID FOAMS	21
<i>Hajžman, M., Polach, P, Jankovec, J.:</i> FLEXIBLE MULTIBODY SYSTEMS IN DYNAMICS OF RAIL VEHICLES	23
<i>Halama, R., Adámková, L., Fusek, M., Ličková, D.:</i> EXPERIMENTAL RESEARCH INTO FATIGUE PROPERTIES OF ALUMINUM ALLOY 2124T851 IN LOW-CYCLE DOMAIN	25
<i>Hrabovský, J., Paulech, J., Murín, J., Kutiš, V.:</i> MULTIPHYSICAL ANALYSIS OF FGM MICRO ACTUATOR	27
<i>Jakubec, J., Kutiš, V., Paulech, J., Gálik, G.:</i> QUALITATIVE COMPARISON OF MESHING APPROACHES IN CFD ANALYSES OF FUEL ASSEMBLY	29
<i>Jančo, R., Élesesztös, P.:</i> NUMERICAL SOLUTION OF JOINT BY FRICTION STIR WELDING	31
<i>Jureczko, M., Knapík, G.:</i> THE PROJECT STAGE OF THE IMPELLER PUMP WITH ASSUMED OPERATING PARAMETERS	33
<i>Jureczko, P., Jureczko, M., Labecki, G.:</i> ANALYSIS OF HUMAN MOVEMENT USING PLATFORMS ZEBRIS	35
<i>Klečková, J., Hamza, J.:</i> INVISCID COMPRESSIBLE FLUID FLOW AROUND MOVING BODIES	37
<i>Klouček, V., Martonka, R.:</i> KINEMATIC ANALYSIS OF HYDRAULIC HEXAPOD	39
<i>Kovalčík, J.:</i> ANALYSIS OF STREAMING GAS AND CHARACTER OF SUPERSONIC GAS FLOW IN THE NOZZLE OF SOLID PROPELLANT ROCKET MOTOR	41
<i>Kutiš, V., Jakubec, J., Paulech, J., Murín, J, Gálik, G., Hrabovský, J.:</i> CFD ANALYSIS OF THERMAL HOMOGENIZATION OF COOLANT IN DOWNCOMER OF NUCLEAR REACTOR VVER440	43

<i>Maldachowska, A., Barcikowski, M.:</i> ACOUSTIC EMISSION OF FATIGUE TENSILE-LOADED CFRP LAMINATES WITH IN-SITU COMPUTED TOMOGRAPHY	45
<i>Materac, A., Nieslony, A.:</i> APPLICATION OF FEM IN PRECLINICAL SIMULATION TESTS IN DENTAL IMPLANTOLOGY	47
<i>Mikula, J., Hutař, P., Ševčík, M., Náhlík, L.:</i> CRACK PROPAGATION IN AN ELECTRO-FUSION AND BUTT WELDING JOINT	49
<i>Owsinski, R., Nieslony, A.:</i> EXPERIMENTAL VERIFICATION OF THE ANALYTICAL DESCRIPTION OF THE SPECIMENS STRESS LEVEL ON DYNAMIC FATIGUE TEST SYSTÉM	51
<i>Padovec, Z., Král, M., Sedláček, R., Růžička, M., Růžička, P.:</i> FE ANALYSIS OF C/PPS TENSILE SPECIMENS WITH VARYING THICKNESS	53
<i>Paulech, J., Goga, V., Kutiš, V., Hrabovský, J., Murín, J., Petriska, M.:</i> COOLING OF BUNDLED OVERHEAD POWER LINES - CFD ANALYSIS	55
<i>Pečenka, L., Halama, R.:</i> A METHOD FOR ESTIMATION OF MATERIAL PARAMETERS OF CHABOCHE MODEL BY INDENTATION TEST	57
<i>Poduška, J., Hutař, P., Ševčík, M., Sadílek, J., Kučera, J., Náhlík, L.:</i> HOOP AND AXIAL RESIDUAL STRESSES IN POLYETHYLENE PIPES	59
<i>Pokorný, P., Náhlík, L., Hutař, P.:</i> EFFECT OF THE LOAD SPECTRUM ON RESIDUAL FATIGUE LIFETIME OF RAILWAY AXLE	61
<i>Sejda, F., Bajtek, V., Michenková, Š., Frydryšek, K., Theisz, G.:</i> PROBABILISTIC RELIABILITY ASSESSMENT OF BEAMS RESTED ON AN ELASTIC FOUNDATION	63
<i>Smolík, L., Hyrát, J.:</i> EFFECTS OF CAVITATION AND TURBULENT FLOW ON DYNAMIC CHARACTERISTICS OF JOURNAL BEARINGS	65
<i>Šika, Z.:</i> MOTION CONTROL AND VIBRATION SUPPRESSION OF ROBOTS BY REDUNDANT MEASUREMENT AND REDUNDANT ACTUATION	67
<i>Štegnerová, K., Náhlík, L., Hutař, P.:</i> FRACTURE MECHANICS DESCRIPTION OF CRACK PROPAGATION IN CERAMIC LAMINATES	69
<i>Zavřelová, T., Mareš, T.:</i> ANALYSIS OF BENDING COMPOSITE BEAM	71